Work Order I June-12-13 9:26:59			*10?	3097*						•	Page 1	l
Revision ID:	243-041 <b>27</b> cket Assembly	4	Accept	*N9000	າ40	100	)*	Setup	Start Stop	*N:	S1* S2*	
Start Date: 6/11 Required Date: 6/11 Reference:	1/13 Start Qty: 100	) *4* *4*		Cust Item ID Customer:	<b>)</b> :				,	I VI		÷
	ocess Plan:	Date: 13-04-12-	Tooling: SPC (Y/N):	Dat Dat	te:		·	Run	Start Stop	*N  *N	R1* R2*	1 12 <b>4.</b>
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	t Rej Qty		Reject Number	Insp. Stamp	7
Draw Nbr	Revision Nbr						i			-		
D3243	Rev A											
*110 *110*	HAAS CNC VERTICA	L MACHINING #1	0.00				Œ.				A.	
Waterjet FLOW CNC Waterjet	Memo 1-Cut as po Dwg Rev: Prog Rev:	<u>A</u>	0.00								13.06	6.3
120	2-Deburr i  QC2- Inspect parts off		0.00									
*120* QC Quality Control	Мето		0.00				-8				13:06	ع. 80

DQA:			Date:										TO AR
						<b>WORK ORDER NON-</b>	-CC	ONFO	RMANCE / UPDA <sup>-</sup>	TE			A E R O S P A C E
QA Closed:			Date:							Wo	ork Order up	date only	
Work Orde	er:					DISPOSITION			A	GAINST DE	PARTMENT/	PROCESS	
Work Orac					_	Rework			Skid-tube Cro	osstube		Water Jet	Engineering
Part N	No.					Scrap			— —	nall Fab	Prod	d. Eng. Coor.	Quality
	•					Use-as-is			- <b> </b>	inishing		e/Packaging	Other
NCR f	No.					Suspected Unapproved			Large Fab Con	mposite	,	Supplier	
Root				,	Desci	ription of work order update	1	<u>l</u> Initial	Action		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	nief Eng	Description	n	Date	Verification	QC Inspector
Design													
Doc/Data													
Equip/Tooling													
Handling/Pre													
Material													
Operator													
Offset/Setup													
Process			l										
Supplier			,										
Training													
Transport									-				
Unapproved					<u> </u>								
		<del> </del>					FA	ULT CA	TEGORY				
Landi		Í			_	General		1 .		_	1	_	٦
	<u> </u>	Bending			$\vdash$	Bend		1	Program	<u> </u>	Outside Dim	<u> </u>	Pressure/Forced
		Centre No	ot Concer	ntric	<u> </u>	BOM/Route		Grain		_	Over/Under	<del>-</del>	Set-up
		Cracks				Broken/Damage/Defect		Hardwa		_	Part Incorred	<b>⊢</b>	Temperature/Cure
	<u> </u>	Crimp/Kir	nk/Ripple	/Wave	<u> </u>	Burrs	<u> </u>	1	ion Incomplete/Unqualif	<del></del>	Part Lost/Mi	· ·	Weld
		Cuffs				Contamination		4	tigns Incomplete/Unclea	ar	Part Moved	<b></b>	Wrong Stock Pulled
	L	Crushing			<u> </u>	Countersink	_	4	gned/off center		Positioned W		٦
	<u> </u>	Heat Trea				Cut Too Short		Mislab			Power Loss/S	Surge	Other
	<u> </u>	Inspection		Tube		Drawing	L	Misrea					
		Marks/Ch				Drill Holes		Off-set					
	<u> </u>	Turning S	-			Finish		-1	Calibration				
		Wave/Tw	ist in Tub	e		Fit/Function	L	Out of	Sequence				

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

Work Order ID 103097 \*103097\* Page 2 June-12-13 9:26:59 AM D3243-041 Accept \*N900040100\* Setup Start \*NS1\* Item ID: **Revision ID:** Stop \*NS2\* Item Name: Bracket Assembly Start Oty: 4.00 \*4\* Start Date: 6/11/13 **Cust Item ID: Reg'd Oty:** 4.00 Required Date: 6/11/13 \*//\* Customer: Reference: Run Process Plan: \_\_\_\_ Date: Tooling: Approvals: Date: Stop Date: SPC (Y/N): Date: \_\_ QC: Sequence ID/ Operation Reject Reject Set Up/ **Tool ID** Tool # Plan Insp. Accept Qty Number Stamp Work Center ID Description Qty Code **Run Hours** PAG. 130 OC8- Inspect parts - second check 0.00 \*130\* B.07.03 0.00 Memo **Quality Control** 150 0.00 NC BRAKE \*150\* Brake NC 0.00 Memo Brake NC Form as per Dwg D3243 OC5- Inspect part completeness to step on W/O \*160\*

ОC

Quality Control

Memo

DQA:			Date:										1	
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE			<b>-</b>		AEROSPACE
QA Closed:			Date:							W	ork Order up	odate only		
Work Orde	er:					DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS		
	•					Rework			Skid-tube Crosstube			Water Jet	7	Engineering
Part N	No.					Scrap			Machining Small Fab	-	Pro	d. Eng. Coor.	1	Quality
						Use-as-is			moforming Finishing		4	re/Packaging		Other
NCR I	۱o.					Suspected Unapproved			Large Fab Composite			Supplier		
			1		_			L	T		1			
Root		_	_		Desci	ription of work order update	1	nitial	Action		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	iief Eng	Description		Date	Verification	$\perp$	QC Inspector
Design														
Doc/Data	-					• •								
Equip/Tooling														
Handling/Pre						,								
Material														
Operator	Н													
Offset/Setup Process	$\vdash$													
						'								
Supplier Training														
Transport														
Unapproved	Н													
	L		<u>L</u>	<u> </u>	<u> </u>		FAI	ULT CA	TEGORY		<u> </u>	L		
Landi	ng (	ear				General								
		Bending				Bend		] Folio/f	Program		Outside Dim	ensions [	$\neg_{Pr}$	essure/Forced
		Centre No	ot Concer	ntric		BOM/Route		Grain			Over/Under	<b>⊢</b>		et-up
		Cracks				Broken/Damage/Defect		Hardwa	are.		Part Incorre	<b>)</b>	_	emperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs		3	ion incomplete/Unqualified		Part Lost/Mi	ssing	_	eld .
		Cuffs				Contamination	·	1	tions Incomplete/Unclear	$\vdash$	Part Moved		$\dashv_{\sf w}$	rong Stock Pulled
	$\vdash$	Crushing				Countersink		1	gned/off center		Positioned V	<u></u>		-
		Heat Trea	ıt			Cut Too Short		Mislab	<del>-</del>		Power Loss/		701	ther
		Inspection	n Strip in	Tube		Drawing		Misrea	d	_	_	_		
		Marks/Ch	atter			Drill Holes	Г	Off-set						
		Turning S	equence			Finish		Out of	Calibration					
		Wave/Tw	ist in Tub	e		Fit/Function		Out of	Sequence					

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Work Orde		3097		*103	3097*						Page 3
Item ID: Revision ID:	D3243-041			Accept	*N900	<b>04010</b>	<b>N</b> *	Setup	Start	*NS	31*
Item Name:	Bracket Asser	mbly							Stop	*N.S	32*
Start Date: Required Date:	6/11/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:					
Reference:			-						_		* - * * * * * * * * * * * * * * * * * *
Approvals:	Process Pla	an:	Date:	Tooling:	Da	ate:	_	Run	Start	*NF	21*
	QC:		Date:	_ SPC (Y/N):	Da	ate:	-		Stop	*NF	<b>?</b> 2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool # Plan Code	Acce Qty	pt Re Qt			Insp. Stamp
170		Chemical Conversion C	oat per QSI005 4.1	0.00					10		20
*170* HandFinish		Мето		0.00	·		S		74	15	8.5
Hand Finishing											
180				0.00			0				0/
*1ጸበ*		Small Fab					80	<u> </u>			13/0
Small Fab Small Fab		Memo Install Inser	ts as per Dwg D3343	0.00							
190		QC5- Inspect part comp	leteness to step on W/O	0.00	SMP	,	Q				
*190* QC QC		Мето		0.00	710			<del></del>			

Quality Control

DQA:			Date:										•	
QA Closed:			Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UP		ork Order up	odate only		AEROSPACE
Q/ Closed.			Dute.								•	•		
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS		
	•				_	Rework			Skid-tube	Crosstube		Water Jet		Engineering
Part f	No.					Scrap		1	Machining	Small Fab	Pro	d. Eng. Coor.		Quality
						Use-as-is		Thern	noforming	Finishing	Rec/Stor	e/Packaging	$\blacksquare$	Other
NCR I	۷o. ِ					Suspected Unapproved			Large Fab	Composite		Supplier		
Root					Desci	ription of work order update		nitial	Actio	on	Sign &		7	
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descrip	otion	Date	Verification	n	QC Inspector
Design		<del></del>											$\Box$	
Doc/Data	Щ													
Equip/Tooling														
Handling/Pre	Ш													
Material	Ш													
Operator														
Offset/Setup	Ш													
Process	Ш													
Supplier	Ш													
Training														
Transport											·		1	
Unapproved														
		·					FAI	ULT CAT	regory					
Landi		1			_	General					<b></b>			
		Bending				Bend		Folio/P	Program		Outside Dim	ensions		Pressure/Forced
	Ш	Centre No	ot Concer	ntric		BOM/Route		Grain			Over/Under	tolerance		Set-up
		Cracks				Broken/Damage/Defect		Hardwa	ire	L	Part Incorred	it .		Temperature/Cure
		Crimp/Kir	nk/Ripple,	/Wave		Burrs		Inspecti	ion Incomplete/Unq	qualified	Part Lost/Mi	ssing	i	Weld
		Cuffs			L	Contamination		Instruct	ions Incomplete/Un	nclear	Part Moved			Wrong Stock Pulled
		Crushing			L	Countersink		Misalig	ned/off center		Positioned V	_		
	Ш	Heat Trea	it			Cut Too Short		Mislabe	eled		Power Loss/	Surge		Other
		Inspection	n Strip in	Tube		Drawing		Misread	t			<u> </u>		
		Marks/Ch	atter			Drill Holes		Off-set						
		Turning S	equence			Finish		Out of (	Calibration					
	Turning Sequence Wave/Twist in Tube			Fit/Function		Out of 9	Sequence							

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Work Order ID June-12-13 9:26:59 AM			*103	3097*		***************************************		Page 4
Revision ID:			Accept	*N90004010	ገ <b>በ</b> *	Setup	Start Stop	*NS1*
Item Name: Bracket Start Date: 6/11/13 Required Date: 6/11/13 Reference:	~ "	*4* *4*		Cust Item ID: Customer:				*NS2*
Approvals: Proce	ss Plan:			Date:		Run	Start Stop	*NR1* *NR2*
Sequence ID/ Work Center ID 200 200 200 Powdercoat Powder Coating 210 210 210 200 Quality Control	Operation Description Black Sandtex(Ref:4.3.5  Memo  *****Mask START TIN OVEN TEN FINISH TIN  QC3- Inspect Part Finish Memo	Holes*****  ME:  ME:  ME:  ME:	Set Up/ Run Hours 0.00 0.00 0.00 0.00	Tool ID Tool # Pla	de Qty	Qty	7-L	Reject Insp. Number Stamp  13/07///
220 *720* Packaging Packaging	Identify as per dwg & St <b>Memo</b>	ock Location: <u>ST</u> &り	0.00		8 x	<u>/</u>	M.	W. 13-7-11

DQA:			. Date:											**	AART
QA Closed:			Date:			WORK ORDER NON-	-C(	ONFO	RMANCE / U		W۵	ork Order up	ndate only	7	AEROSPACE
Q. 1 0.000cu.												<u>-</u>			
Work Orde	er:					DISPOSITION				AGAINST I	DEF	PARTMENT	/PROCESS		
	•			_		Rework			Skid-tube	Crosstube			Water Jet	ŢΕ	ngineering
Part N	No.					Scrap			Machining	Small Fab		Pro	d. Eng. Coor.		Quality
						Use-as-is		Therr	noforming	Finishing		Rec/Stor	re/Packaging		Other
NCR I	No.					Suspected Unapproved			Large Fab	Composite			Supplier		
Root			-		Desci	ription of work order update		nitial	Act	tion		Sign &		$\top$	
Cause		Date	Step	Qty		or non-conformance	l	ief Eng	Descr	ription		Date	Verification		QC Inspector
Design										·					·
Doc/Data											ŀ				
Equip/Tooling														İ	
Handling/Pre														ļ	
Material	Ш														
Operator															
Offset/Setup														1	
Process	Ш	1													
Supplier															
Training															
Transport	Ш														
Unapproved										·					
·						·	FA	ULT CA	TEGORY						
Landi	ng G	Gear				General	_	,		F		•	_	_	
	$\vdash$	Bending				Bend	<u> </u>	Folio/F	Program	ļ		Outside Dim	ensions	Pre	ssure/Forced
		Centre No	ot Concer	ntric	<u> </u>	BOM/Route	<u> </u>	Grain				Over/Under	tolerance	Set	t-up
	$\vdash$	Cracks				Broken/Damage/Defect	<u> </u>	Hardwa	are	1		Part Incorred	ct _	Ter	nperature/Cure
		Crimp/Kir	nk/Ripple	/Wave	<u> </u>	Burrs	L	Inspect	ion Incomplete/Ur	nqualified		Part Lost/Mi	ssing	We	eld
		Cuffs			<u> </u>	Contamination		Instruct	tions Incomplete/U	Jnclear		Part Moved		Wr	ong Stock Pulled
	Ш	Crushing				Countersink		Misali	gned/off center	<u>[</u>		Positioned V	Vrong	_	
	$\vdash$	Heat Trea				Cut Too Short	L	Mislabe	eled	Į		Power Loss/	Surge	Otł	ner
	$\vdash$	Inspectio		Tube		Drawing	L	Misrea	d						
		1				Drill Holes	<u>_</u>	Off-set							
		1	•			Finish		Out of	Calibration						
	Marks/Chatter Turning Sequence Wave/Twist in Tube			Fit/Function		Out of	Sequence								

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Work Ordo June-12-13 9:2				*103	3097*						Page 5
Item ID: Revision ID: Item Name:	D3243-0	041 Assembly		Accept	*N900	<b>040</b>	100	)* 5	Setup Sta Sto	iV	S1* S2*
Start Date: Required Date: Reference:	6/11/13 6/11/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:					
Approvals:	Proces	s Plan:	Date:	Tooling:	D:	ate:	-	I	Run Sta	1/1	R1*
	QC:		Date:	SPC (Y/N):	Da	ate:			Sto	*N	R2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230		QC21- Final Inspection -	- Work Order Release	0.00						1 /	10
*230* QC Quality Control		Memo		0.00					13,	17/16	, \$

pl13-07-12/

DQA:			Date:											**	
QA Closed:			Date:			WORK ORDER NON	-CC	ONFO	RMANCE / UI		<b>\ \ \ \ \ \ \ \ \ \</b>	rk Order up	data anku - F	_	AEROSPACE
QA Closeu.			Date.								VVO	rk Order up	idate only		
Work Orde	≘r:					DISPOSITION				AGAINST I	DEP	ARTMENT	PROCESS		
	-				_	Rework	1		Skid-tube	Crosstube			Water Jet	$\neg$	Engineering
Part N	No.					Scrap			Machining	Small Fab		Prod	d. Eng. Coor.	$\dashv$	Quality
	-					Use-as-is	1		noforming	Finishing	$\neg$		e/Packaging	ヿ	Other
NCR N	No					Suspected Unapproved			Large Fab	Composite			Supplier		
Root					Docc	ription of work order update	1 1	Initial	Act	ion	T	Sign 9.		一	
Cause	ŀ	Date	Step	Qty	Desc	or non-conformance		nief Eng		ription		Sign & Date	Verification	,	QC Inspector
Design	$\Box$	Date	Step	Qty		or non-comormance		ilei, Liig	Desci	TPCION	$\dashv$	Date	Vermeation	+	QC IIISPECTOI
Doc/Data	Н														
Equip/Tooling	H													1	
Handling/Pre	Н		1												
Material	П										- 1				
Operator	П													ı	
Offset/Setup	П														
Process	П													1	
Supplier	П													1	
Training															
Transport															
Unapproved							L								
							FA	ULT CA	TEGORY				1.		
Landi	ng G	ear			_	General				_			_		
	Ш	Bending				Bend	L	Folio/F	Program			Outside Dim	ensions	ر ا	Pressure/Forced
	Ш	Centre No	ot Concer	ntric		BOM/Route		Grain				Over/Under	tolerance		Set-up
	-	Cracks				Broken/Damage/Defect		Hardwa	are			Part Incorred	ct	┛	Temperature/Cure
	Ш	Crimp/Kir	nk/Ripple	/Wave		Burrs		Inspect	ion Incomplete/Ur	nqualified		Part Lost/Mi	- J-	—-	Weld
	Н	Cuffs				Contamination		Instruct	tions Incomplete/U	Jnclear		Part Moved	Ĺ	'	Wrong Stock Pulled
	-	Crushing				Countersink		1 7	gned/off center		-	Positioned <b>V</b>			
		Heat Trea				Cut Too Short	$\vdash$	Mislabe				Power Loss/	Surge	<u>ال</u>	Other
	-	Inspectio	• •	Tube	<u> </u>	Drawing	$\vdash$	Misrea			_				
	-	Marks/Ch				Drill Holes	<u>_</u>	Off-set			_				
	$\vdash$	Turning S			<u> </u>	Finish		1	Calibration		_				
	ı l	Wave/Tw	ist in Tub	ne .	i	Fit/Function	1	I Out of	Saguence						

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## **Picklist Print**

June-12-13 9:26:59 AM

Work Order ID:

103097

Parent Item:

D3243-041

Parent Item Name:

Bracket Assembly

**Start Date:** 6/11/13

Required Date: 6/11/13

Page 1

Start Qty: 4.00

Required Qty: 4.00

Comments:	IPP Rev:A New	Issue 05-11	-29 JLM										
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
FE-032-EF		Purchased	No			180	Each	202.0000	4	16	ÐX	. /	20
Inserts									( <u>, , , , , , , , , , , , , , , , , , ,</u>		7)	) /07	701
				Location		Loc Qty	<u>L</u>	oc Code				/ /	
				ST283		202							
				117	168	102			_3	2			
				117	226	100							
M6061T6S.063 6061-T6 .063 Sheet		Purchased	No			110	sf	251.7425	0.5499	2.3153684	1	le 13	.06·3
				<u>Location</u>		Loc Qty	<u>L</u>	oc Code					
				MAT021		251.7425			·				
				123	135	120.2625							
				124	003	79.19							
				125	431	52.29			_2.	32			

<u>^</u>

DQA:			Date:		·				_				7	A PT
QA Closed:			Date:			WORK ORDER NON-	-C(	ONFO	RMANCE / UP		Work Order u	pdate only	مارك AE	ROSPACE
						DISPOSITION					DEPARTMENT	, ,		
Work Orde	er:						,			-	-	-		
Part N	No.					Rework Scrap			Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet od. Eng. Coor.	Engine	ering ality
					_	Use-as-is	1 1		noforming	Finishing		re/Packaging		ther
NCR N	No					Suspected Unapproved			Large Fab	Composite		Supplier		
Root					Desci	ription of work order update		nitial	Acti	on	Sign &			
Cause	D	ate	Step	Qty		or non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	QC In	spector
Design														
Doc/Data	Ш													
Equip/Tooling														
Handling/Pre														
Material	Ш											:		
Operator							ł							
Offset/Setup														
Process														
Supplier														
Training														
Transpo <i>r</i> t		į										Ì		
Unapproved							<u> </u>							
							FAI	ULT CAT	regory					
Landi	ng Gear					General				_		_		
	Ben	ding				Bend	L	Folio/F	Program	L	Outside Dir	nensions	Pressure/	Forced
	Cen	tre Not	Concen	itric		BOM/Route	L	Grain			Over/Unde	r tolerance	Set-up	
	Cra	cks				Broken/Damage/Defect		Hardwa	ire	Ĺ	Part Incorre	ect	Temperat	ure/Cure
	Crin	np/Kink	c/Ripple,	/Wave		Burrs		Inspect	ion Incomplete/Und	qualified	Part Lost/N	lissing	Weld	
	Cuff	fs				Contamination		Instruct	tions Incomplete/U	nclear	Part Moved	[	Wrong Sto	ock Pulled
		shing				Countersink	L	Misalig	ned/off center		Positioned	Wrong		
	Hea	it Treat				Cut Too Short		Mislabe	eled		Power Loss	/Surge	Other	
	Insp	ection	Strip in	Tube		Drawing		Misread	t					
	Mai	rks/Cha	itter			Drill Holes		Off-set						
	Tur	ning Se	quence			Finish		Out of (	Calibration					
	l lwa	ve/Twis	st in Tub	P		Fit/Function		Out of	Saguence					

DART AEROSPACE LTD	Work Order:	103097
Description: Bracket	Part Number:	D3243-1
Inspection Dwg: D3243 Rev: A		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Dimension						2) 20
11.920	+/-0.010	11.922	-		٧	W) - 02
11.420	+/-0.010	11.420			V	m) - 03
Ø0.201	+0.005/-0.000	.203			V	UKM-01
Ø0.290	+0.005/-0.000	, 293	_		٧	JKM-01
1.375	+/-0.005	1.375			V	JKm-01
5.273	+/-0.010	5.213			V	JKm-01
0.500	+/-0.010	,500			V	JKm. Ol
0.500	+/-0.010	,500			٧	JKM -01
0.750	+/-0.010	,750			V	JKm-01
R0.50	+/-0.030	20.50	_		RG	
5.360	+/-0.010	5.360			V	
5.810	+/-0.010	5.810	_		v	JKM-01
6.560	+/-0.010	6.560			٧	
R0.250	+/-0.030	.250	-		Ra	
			5/	No.		

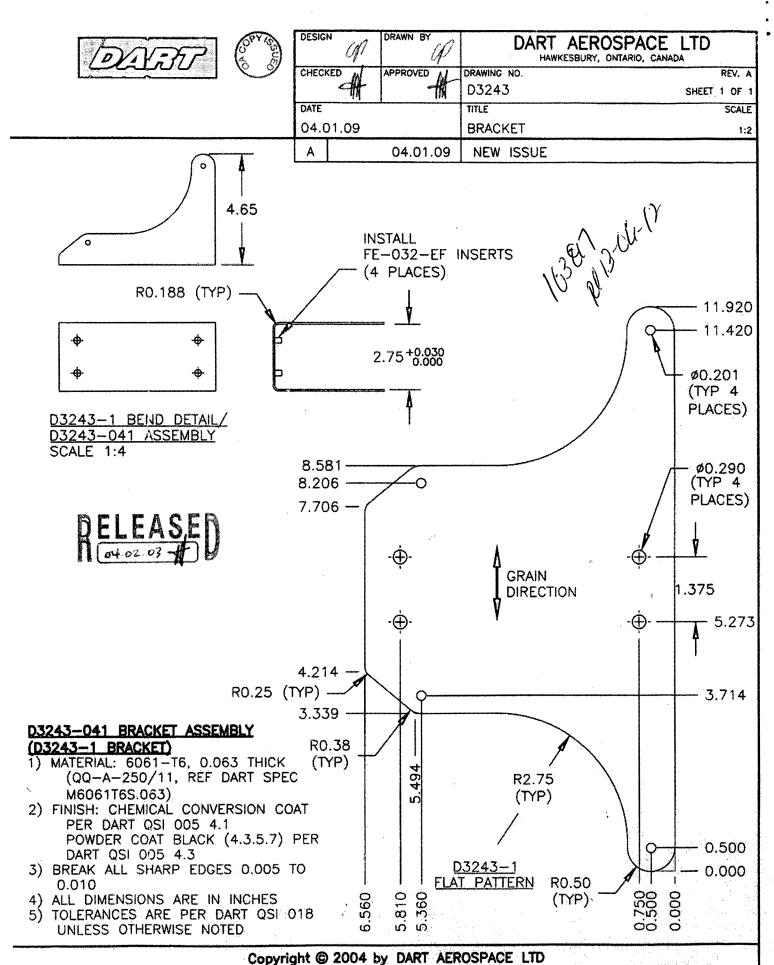
Measured by: Audited by: Solution Prototype Approval: N/A

Date: 13.06.30

Audited by: Prototype Approval: N/A

Date: N/A

Rev	Date	Change		Revised by	Approved
Α	04.02.18	New Issue	(P/O D044-715-011)	KJ/JLM LA	
В	04.04.19	Removed dimensions from FAI		KJ/RF ﷺ	



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